

Fig. 1

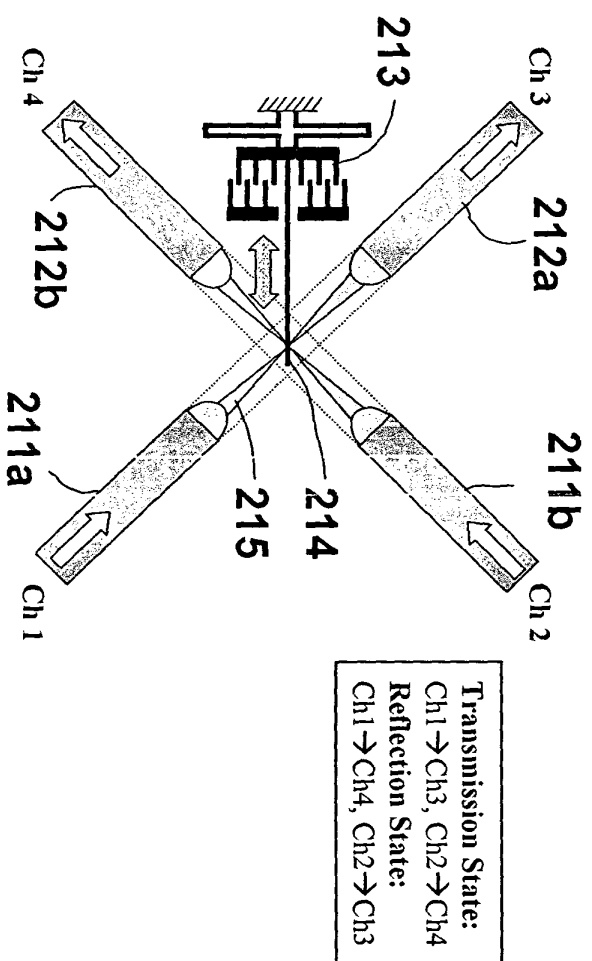


Fig.2

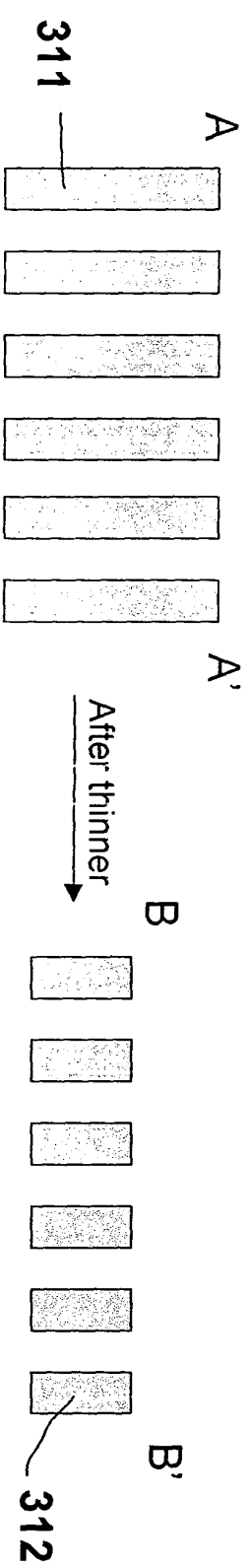
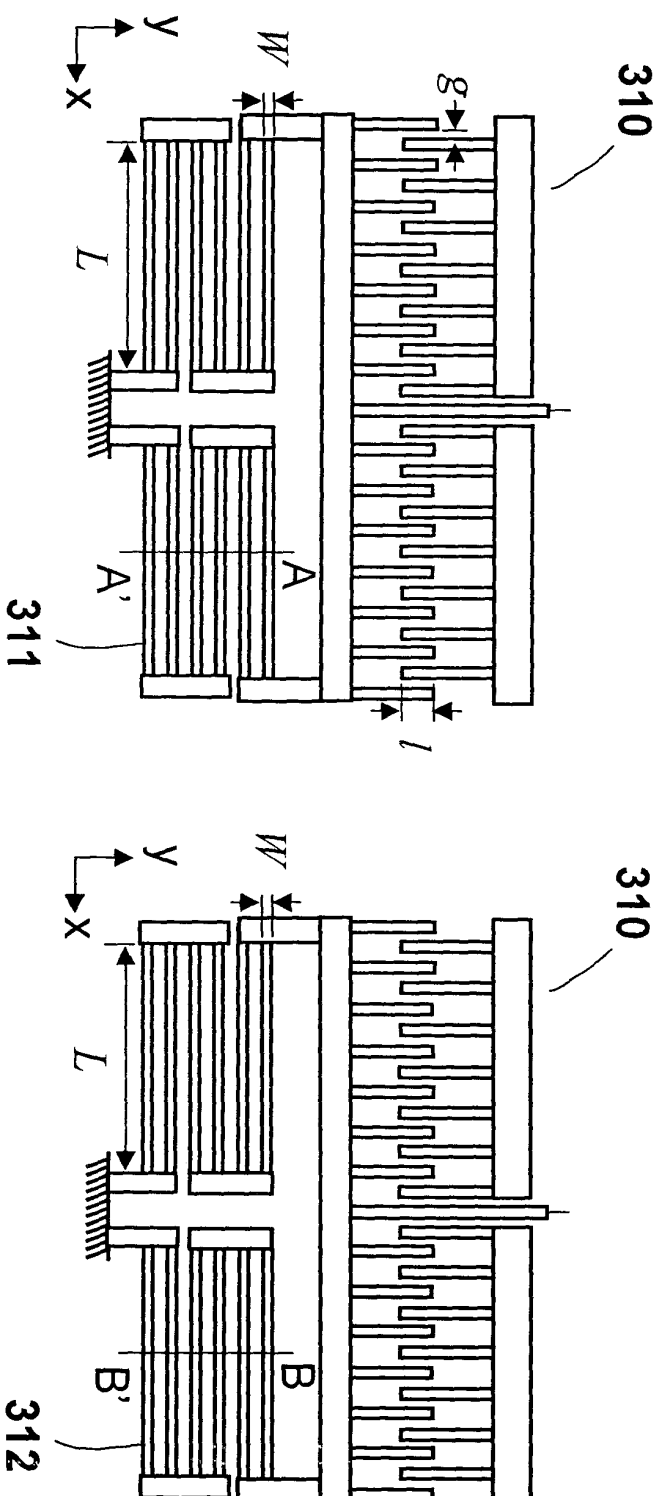


Fig.3

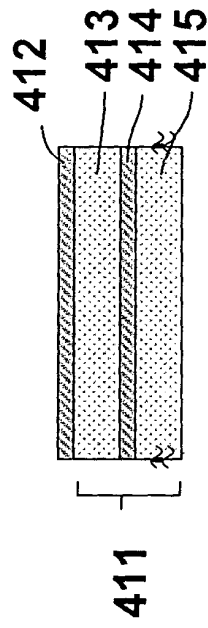


Fig. 4a

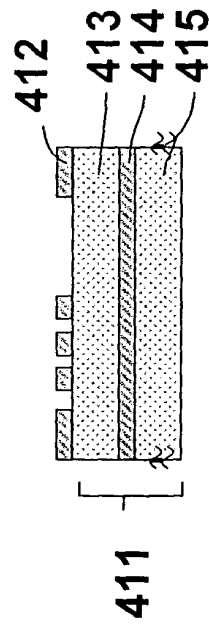


Fig. 4b

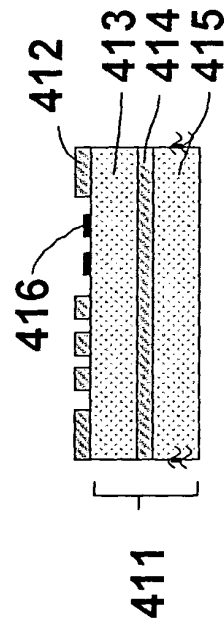


Fig. 4c

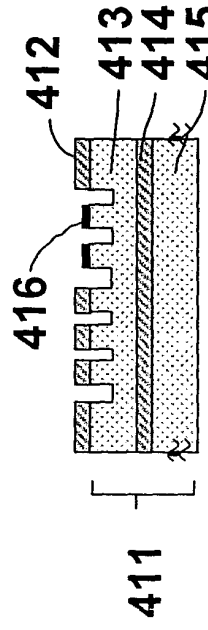


Fig. 4d

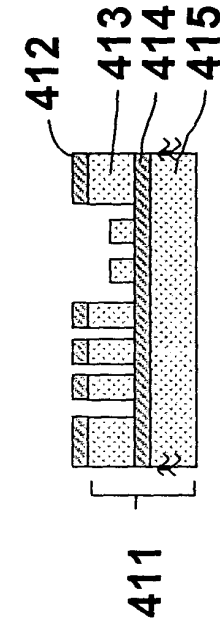


Fig. 4e

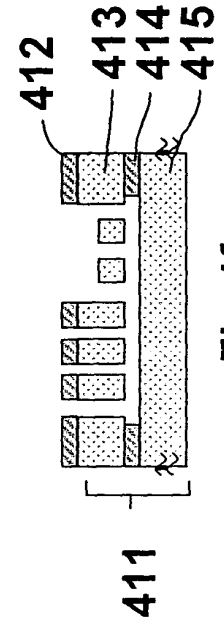


Fig. 4f

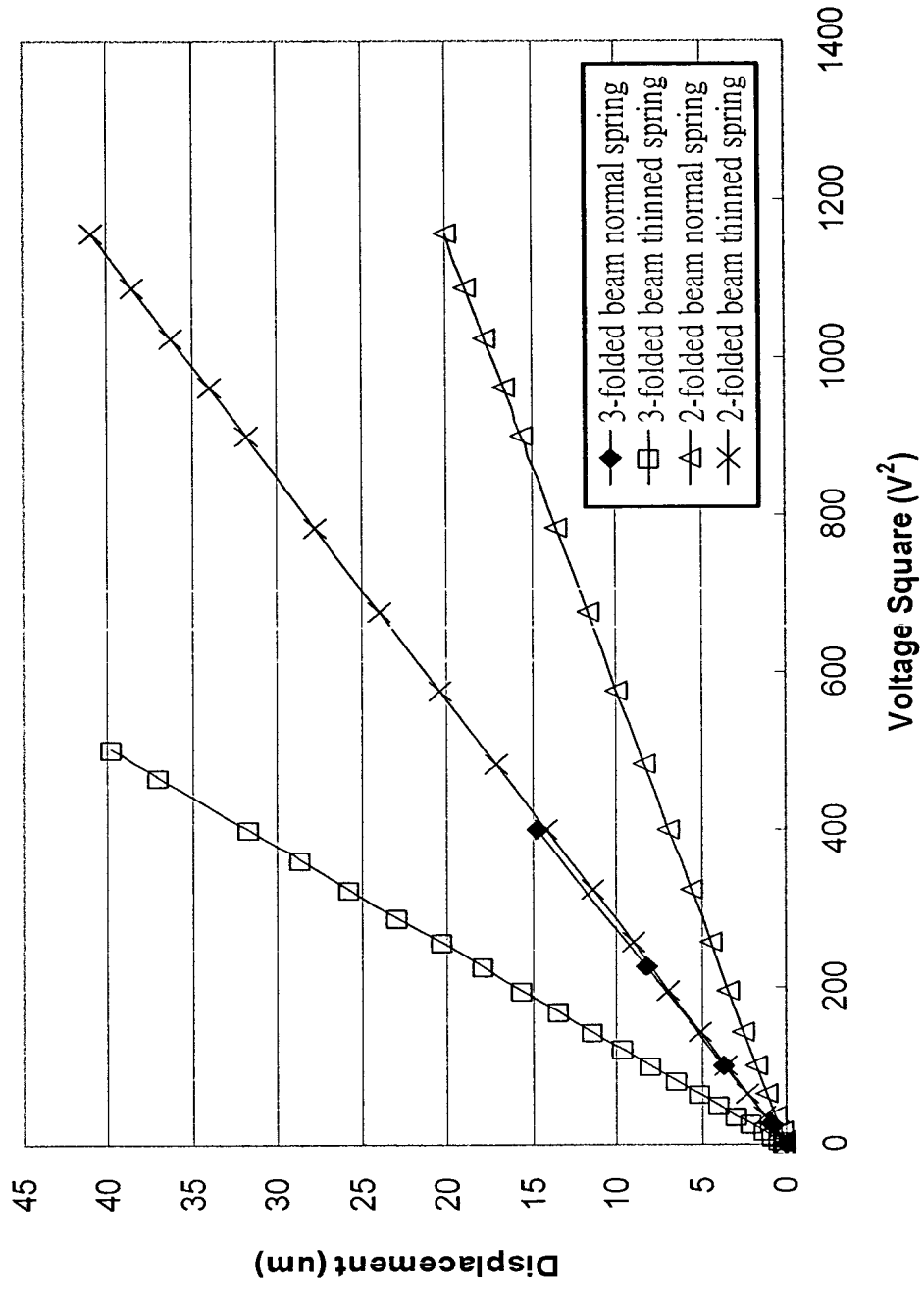


Fig.5

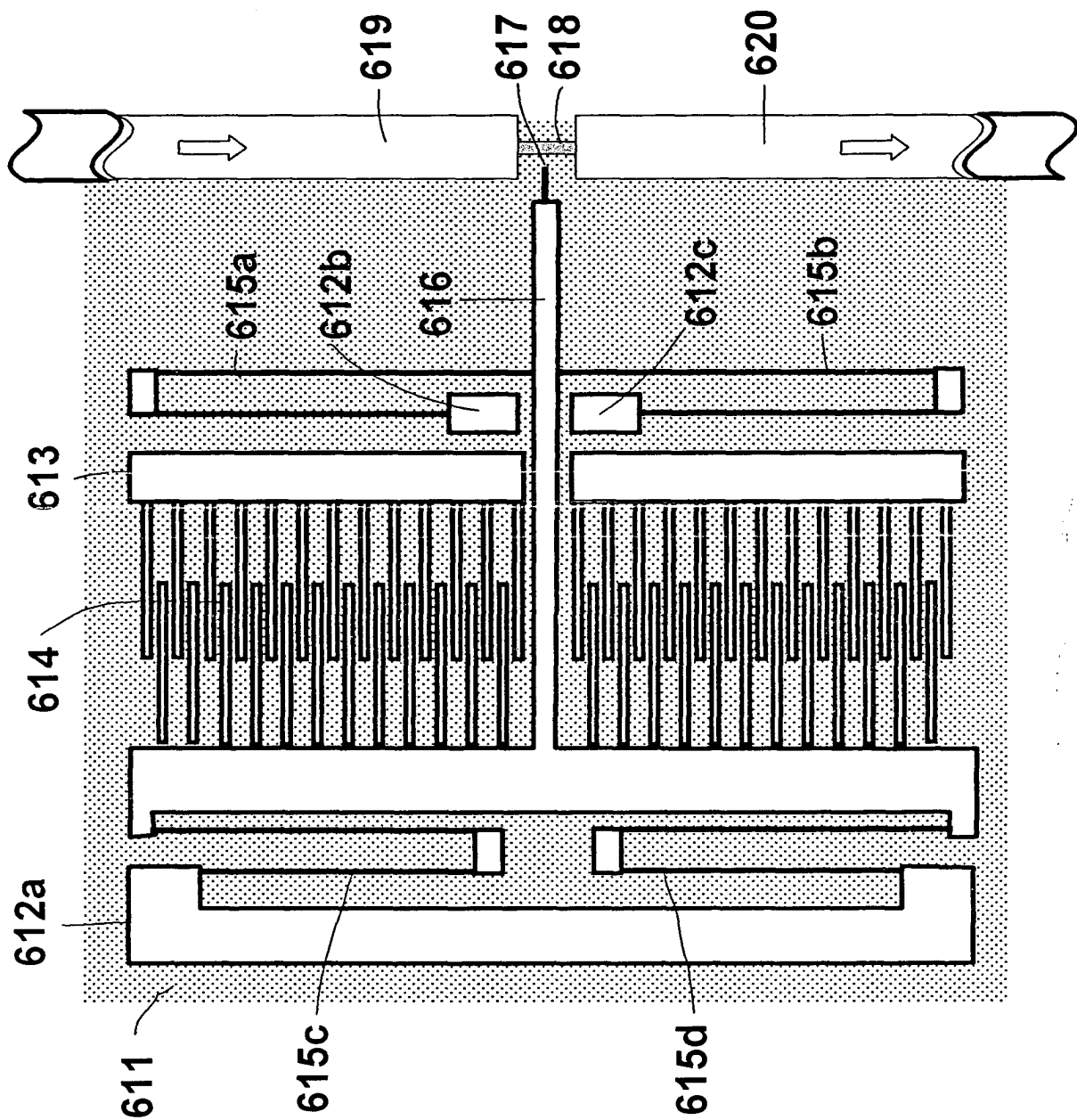


Fig.6

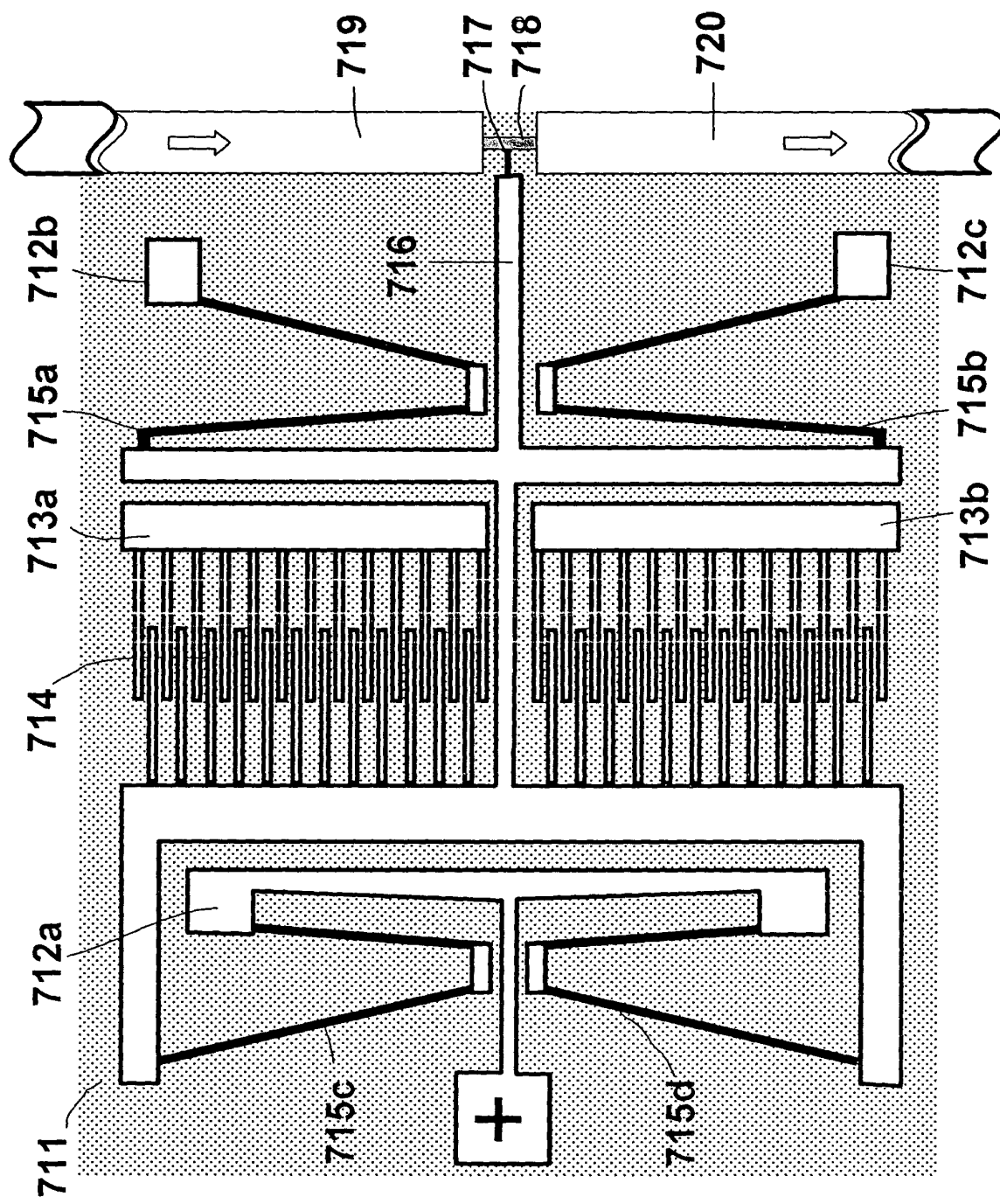


Fig. 7

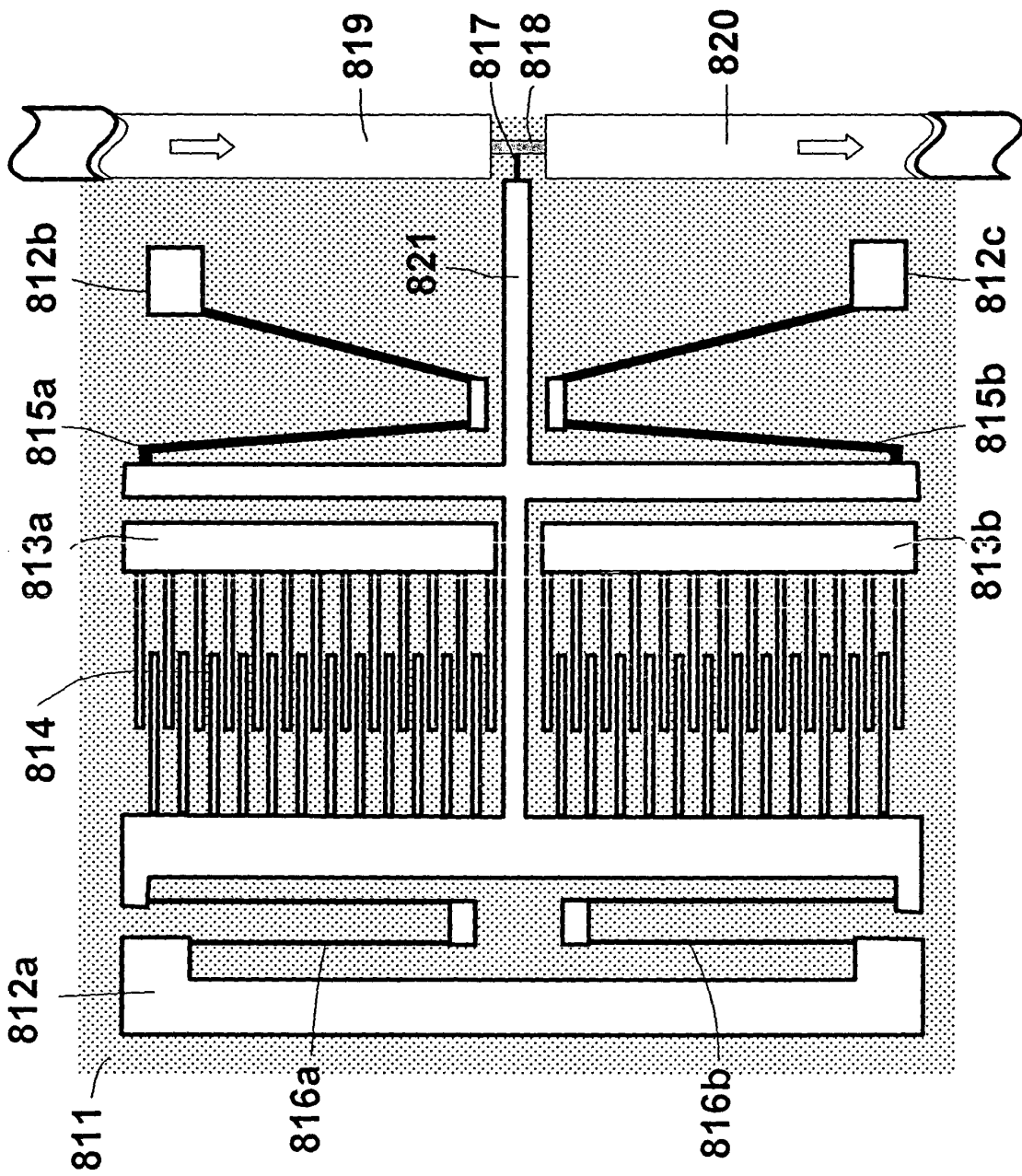


Fig.8a

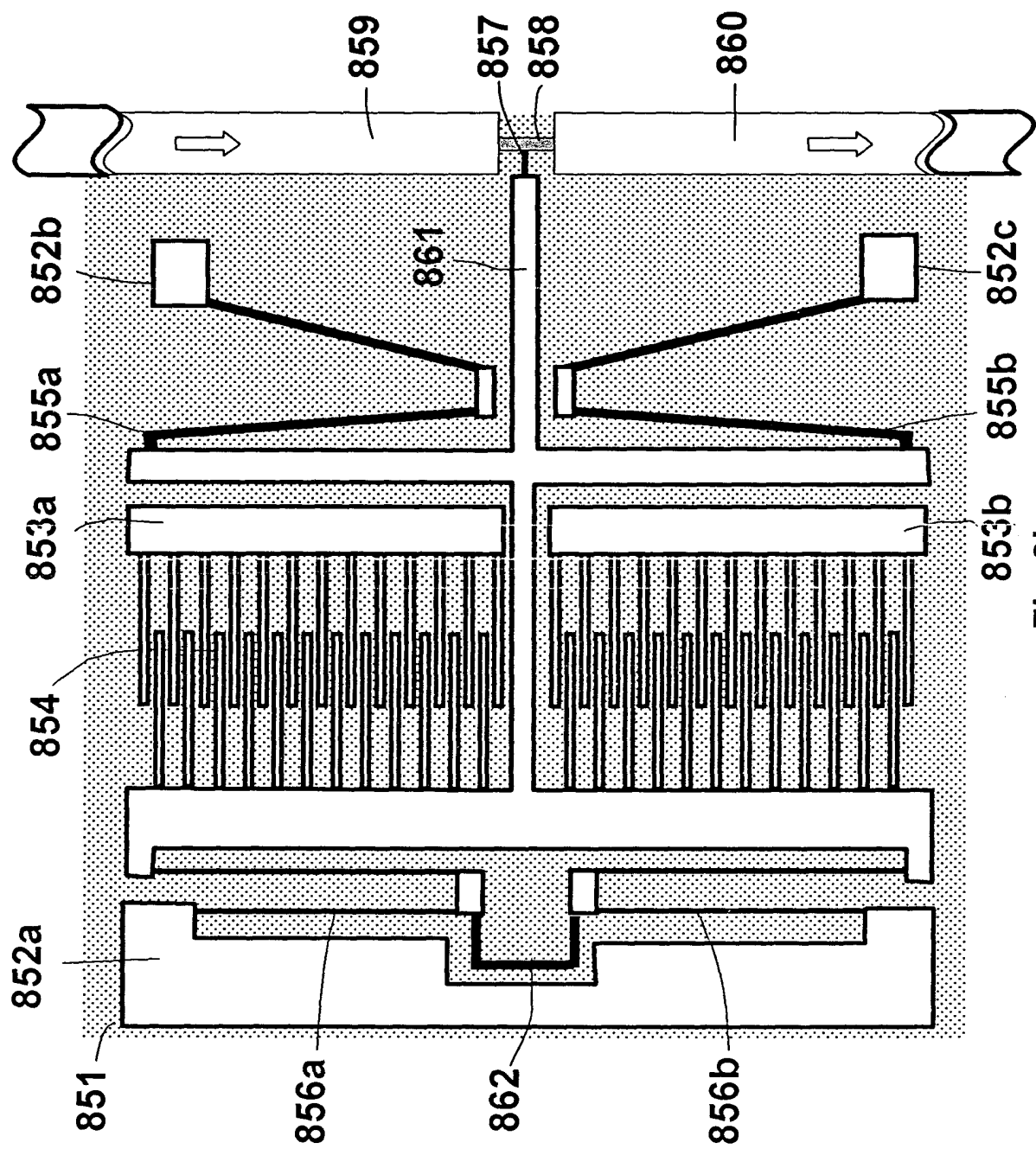


Fig.8b

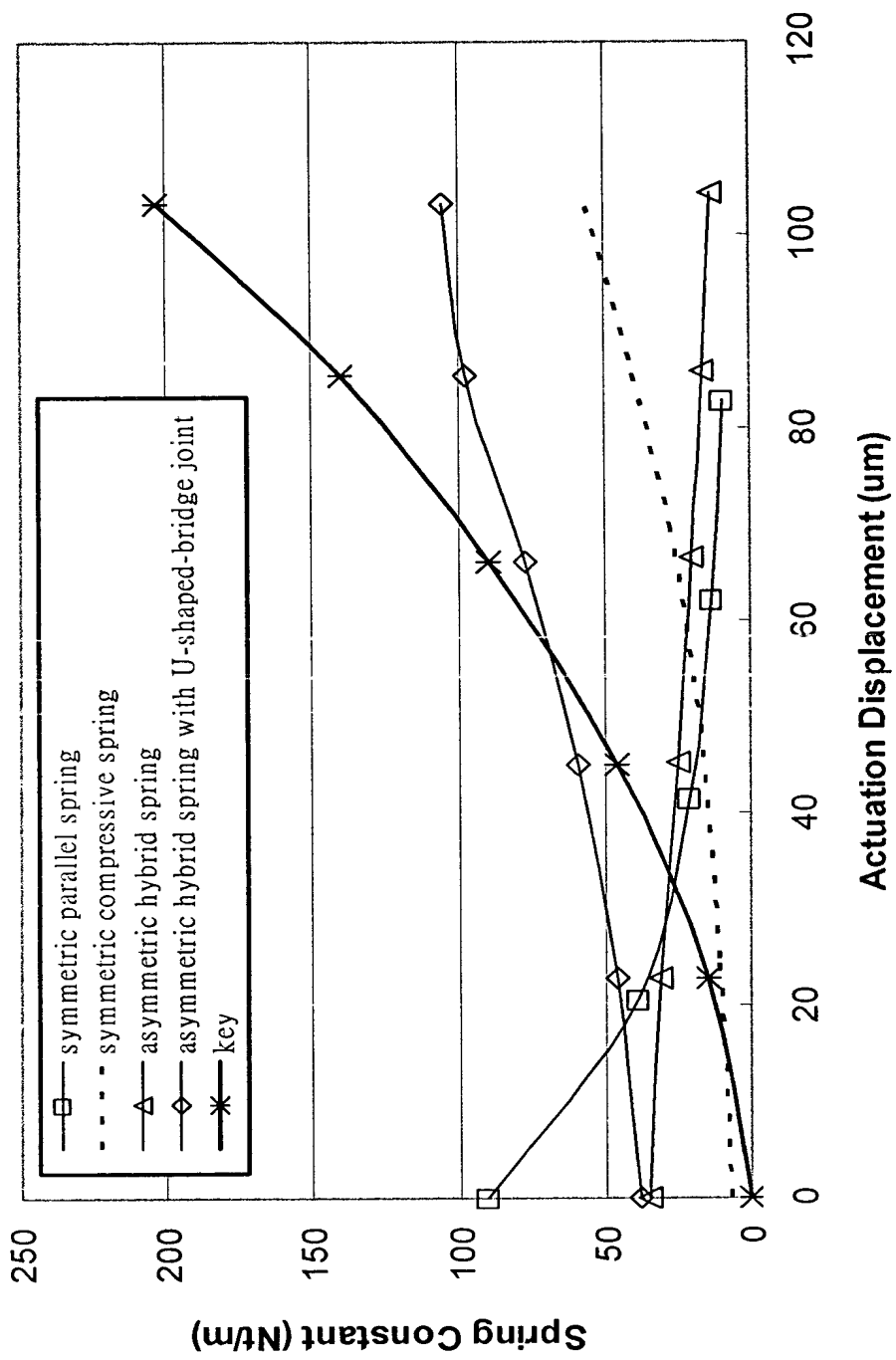


Fig.9

$$F = \frac{\epsilon \cdot t \cdot H \cdot V^2}{2 \cdot g}$$

ϵ : dielectric constant
 H : thickness of device
 V : voltage
 g : gap of finger
 t : width of comb finger

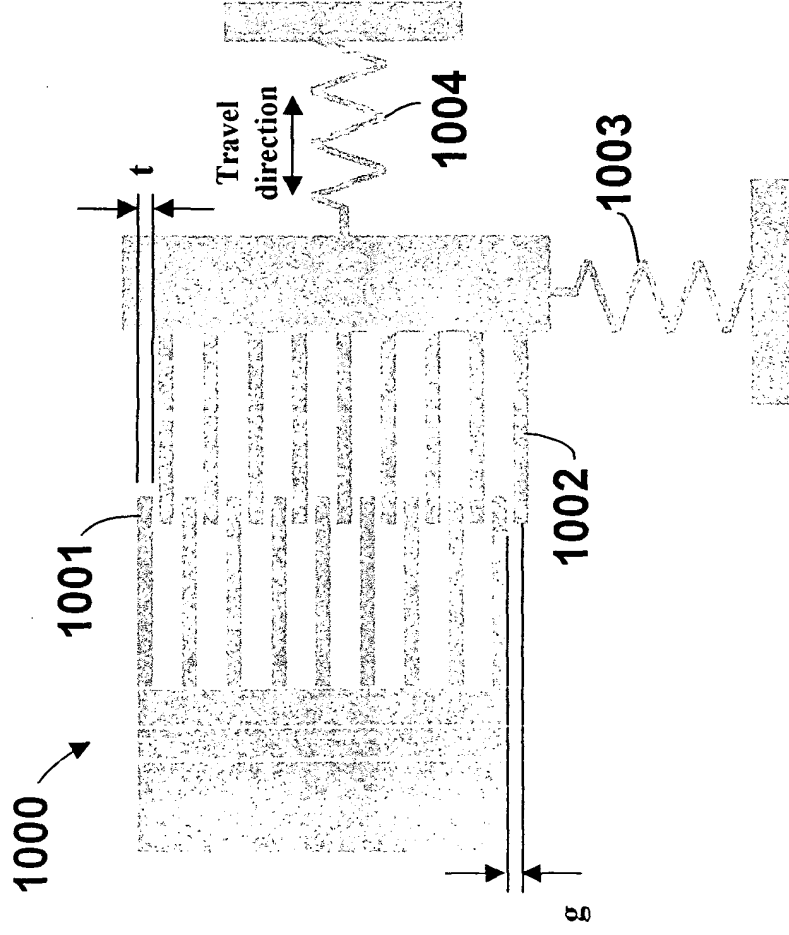


Fig.10a

$$F = \varepsilon \cdot H \cdot V^2 \cdot \frac{(g \cdot \cos(\theta) + W_o \cdot \sin(\theta))}{(g - x \cdot \sin(\theta))^2}$$

- ε : dielectric constant
- H: thickness of device
- V: voltage
- g : gap of finger
- W_o : overlap of comb finger
- θ : degree of oblique comb
- L_o : working distance

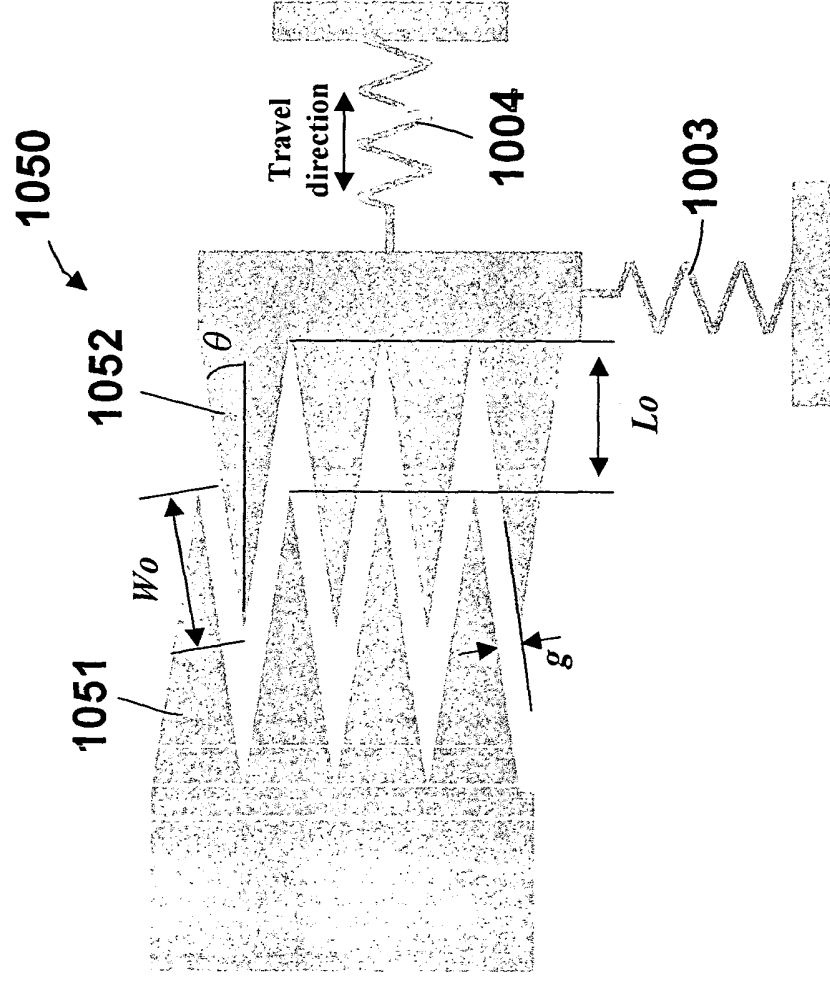


Fig.10b

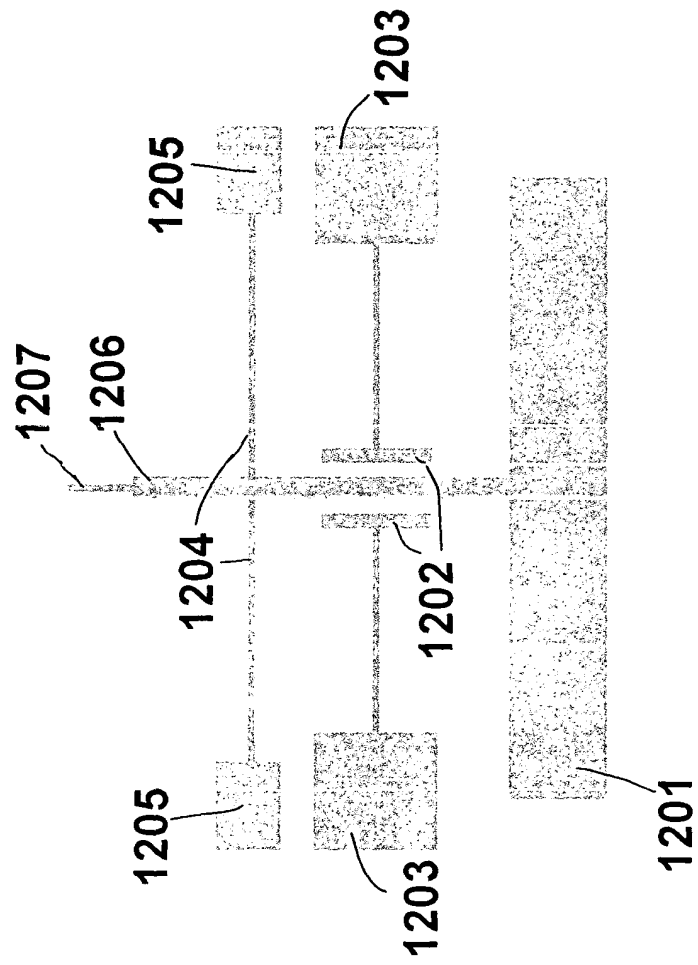


Fig.12a

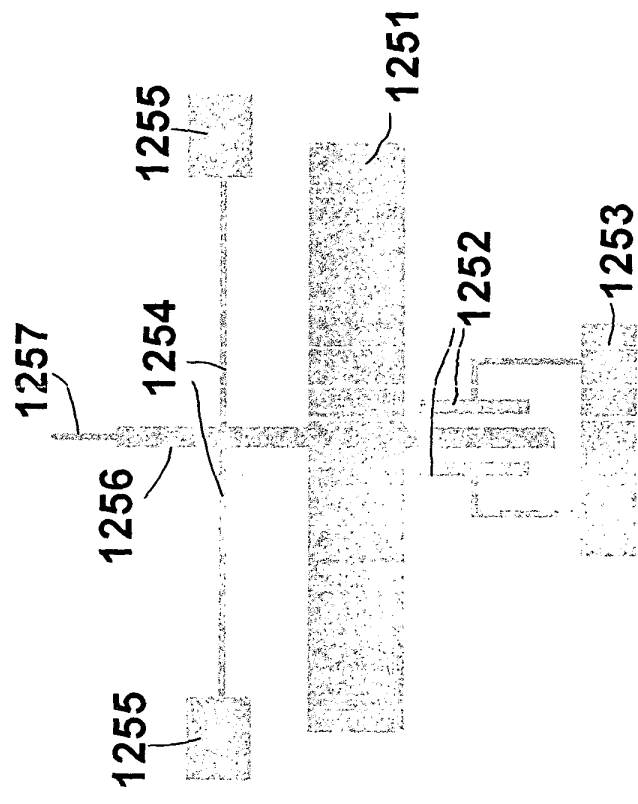


Fig.12b